

CLAIMS

1. A prepreg produced by impregnating a reinforced-fiber sheet with a matrix resin, being characterized in that the prepreg comprises a continuous resin layer which exists in an inside thereof, and at least one surface of one side thereof is constituted of a resin-impregnated part where an impregnated resin substantially exists and a fiber part where an impregnated resin does not substantially exist.

2. The prepreg according to claim 1, being characterized in that the one surface of the one side thereof has a sea-island structure in which the fiber part constitutes a sea portion and the resin-impregnated part constitutes an island portion.

3. The prepreg according to claim 2, being characterized in that an area of the island portion is 1 to 80% of a total area of the one surface of the one side thereof.

4. The prepreg according to any one of claims 1 to 3, being characterized in that a protective film having an irregular surface is applied to at least one surface of one side of the reinforced-fiber sheet impregnated with the matrix resin.

5. A method of producing the prepreg according to any one of claims 2 to 4, being characterized in that a center distance between adjacent island portions is 1 to 10 mm.

6. A method of producing a prepreg, being characterized

by comprising:

impregnating a reinforced-fiber sheet with a matrix resin so as to form a continuous resin layer at least in an inside thereof; and

applying a protective film having an irregular surface to at least one surface of one side of the reinforced-fiber sheet impregnated with the matrix resin.

7. The method of producing the prepreg according to claim 6, being characterized in that only a convex portion of the irregular surface is brought into contact with the reinforced-fiber sheet impregnated with the matrix resin.

8. The method of producing the prepreg according to claim 6 or 7, being characterized by comprising keeping the viscosity of an impregnated resin at 10000 Poise or less for 4 hours or more in a situation where the protective film is applied to the reinforced-fiber sheet.

9. The method of producing the prepreg according to claim 6 or 7, being characterized by comprising keeping a temperature at 30 to 150°C for 4 hours or more in a situation where the protective film is applied to the reinforced-fiber sheet.

10. The method of producing the prepreg according to claim 6, being characterized in that the irregular surface of the protective film is formed of a number of independent convex portions.

11. The method of producing the prepreg according to

claim 10, being characterized in that the irregular surface of the protective film is disposed with dispersing a number of convex portions uniformly on a surface of the film.

12. The method of producing the prepreg according to claim 10 or 11, being characterized in that a center distance between the adjacent convex portions is 1 to 10 mm.